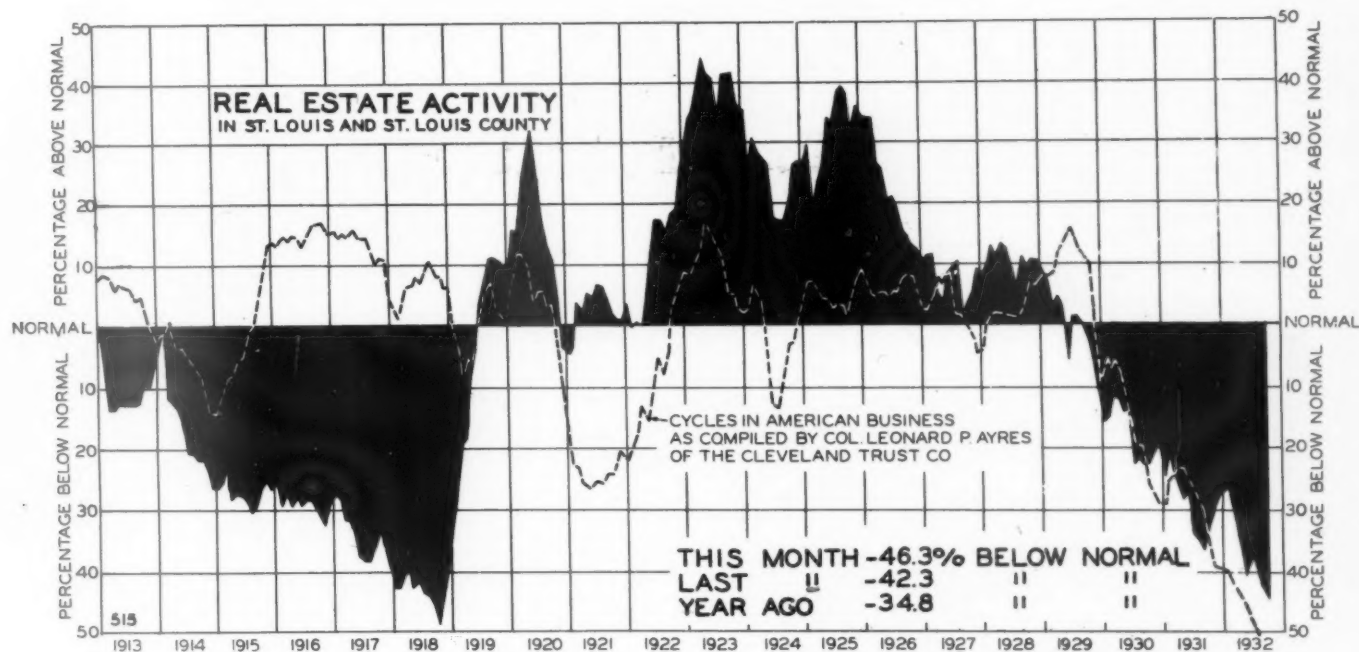




# The Real Estate ANALYST

SAINT LOUIS EDITION

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**S**EPTEMBER was a month of further drastic liquidation in real estate. Foreclosures continued their upward movement, setting a new high record but no longer increasing at the tremendous rate of a few months ago. Construction has stayed at a standstill and open shop construction costs have dropped to a point but slightly above pre-war. Marriages have dropped to the lowest point ever recorded in Saint Louis in relation to the population.

A careful analysis of the chart of real estate activity in the March issue of the REAL ESTATE ANALYST, the last few years of which are reproduced above, shows quite clearly that a balancing of the post-war boom by the present depression was inevitable unless all of the precedents of the past were to be reversed. The deeper this depression in real estate activity goes, the shorter its duration will be. We have not yet reached the turning point and no appreciable improvement can be expected in the next few months. The best we can hope for this winter is indications that the tide is turning. Only when these indications become convincing will public confidence return.

## THE MONTH'S CHANGES AT A GLANCE

The indicators at the bottom of the page will show at a glance the month's changes in conditions. The position of the arrow head shows the movement during the month - up indicating improvement and down, decline.

ACTIVITY			FORECLOSURES			CONSTRUCTION			APART. RENT			OTHER RENT			MARRIAGES		
JULY	AUG.	SEPT.	JULY	AUG.	SEPT.	JULY	AUG.	SEPT.	JULY	AUG.	SEPT.	JULY	AUG.	SEPT.	JULY	AUG.	SEPT.
↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗

## VARIATIONS IN CONSTRUCTION COST OF A FOUR FAMILY FLAT

**I**N the September issue of the REAL ESTATE ANALYST, the construction cost in Saint Louis of a six-room brick residence was studied by years from 1913 to the present. The cost was expressed in total dollars and also in cents per cubic foot and in dollars and cents per square foot of ground area. (See pages 68 - 69.)

In this issue the cost of the typical speculative four-family flat, pictured on the opposite page, is studied in detail from 1907 to the present. This particular building was selected as it was probably duplicated with very slight variations in greater number than any other general type. We have found that almost every speculative builder still has a set of plans in his file for some variation of this building.

The general specifications for this double flat are given below: CUBAGE - 51,272 cubic feet without front or rear porches - 1768 square feet of ground area; FOUNDATION - rubble stone; WALLS - 13" variegated matt brick backed with 5 x 8 x 12 tile; FIRE WALLS - salmon brick; STONE TRIM - average grade cut stone base, sills and trim; ROOF - Spanish tile mansard with tar and gravel back roof; SHEET METAL WORK and FLASHING - 26 gauge sheet metal; SASH - wood; DOORS - exterior, 1-3/4" fir-interior, 1-3/8" pine; INTERIOR TRIM - yellow pine, ivory enamel; PLASTER - 3 coats on wood lath; FLOORS - in basement, cement - bath, ceramic tile - kitchen, maple - others, oak; INTERIOR WALLS - plastered and papered; PLUMBING FIXTURES - 60" open front recess tubs - bracket lavatories - toilets, average grade - 42" sinks, average quality; ELECTRIC FIXTURES - average; HEATING PLANTS - 4 good grade warm air furnaces; WATER HEATERS - 4 average gas, copper coil; PORCHES - front, brick - rear, wooden screened; WALKS - cement; SODDING - entire yard; NO GARAGES.

There were several problems which immediately presented themselves in this study.

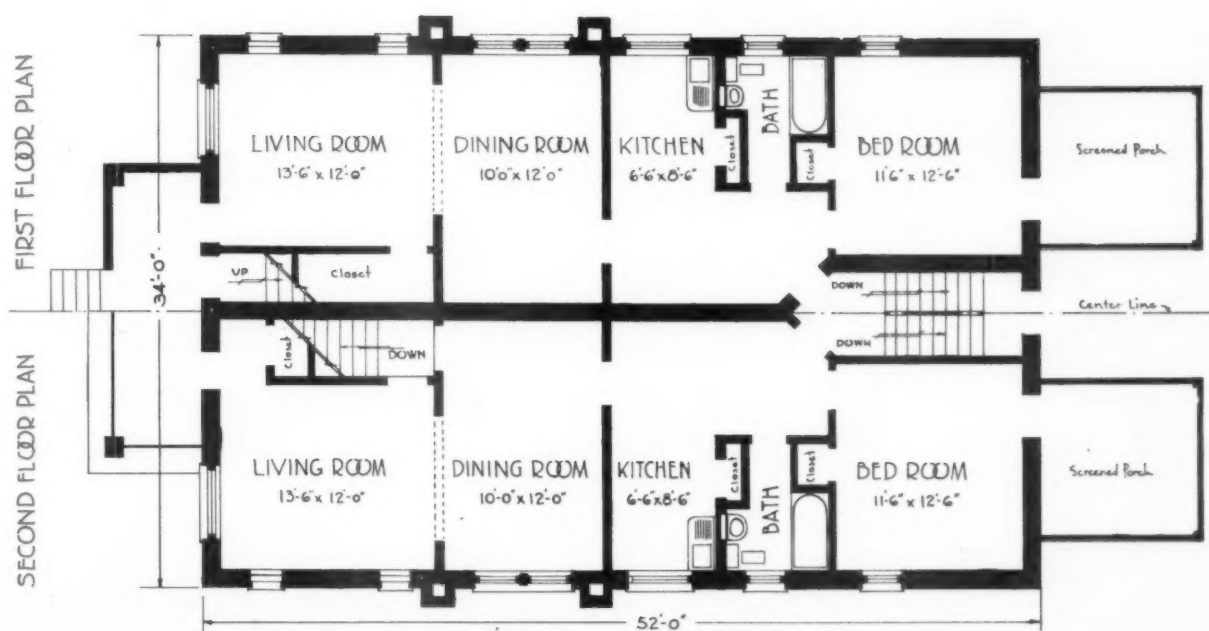
I. During the speculative period, this building was generally built in quantities which slightly reduced the cost per building. It was decided, however, to compare costs for the entire period on the basis of the construction of a single building, feeling that any saving due to multiple construction would be more apt to increase the profit to the builder than to reduce the selling price materially.

II. During the period from 1907 to the present, the specifications were changed several times due to changes in materials available and differences in building practice. During the past year, conduit and BX replaced the knob and tube wiring formerly allowed. The kitchen drain boards in 1907 were wooden, the toilets had high wooden tanks, the bathtubs were on legs, the bath floors were not tile, and the other floors were not hardwood. In 1907, the front of the building only was built of stock brick, the balance being common. The backing then was of salmon, later giving way to dobies, then to 5 x 8 x 12 tile. All of these changes have had their effect on prices, both of material and labor.

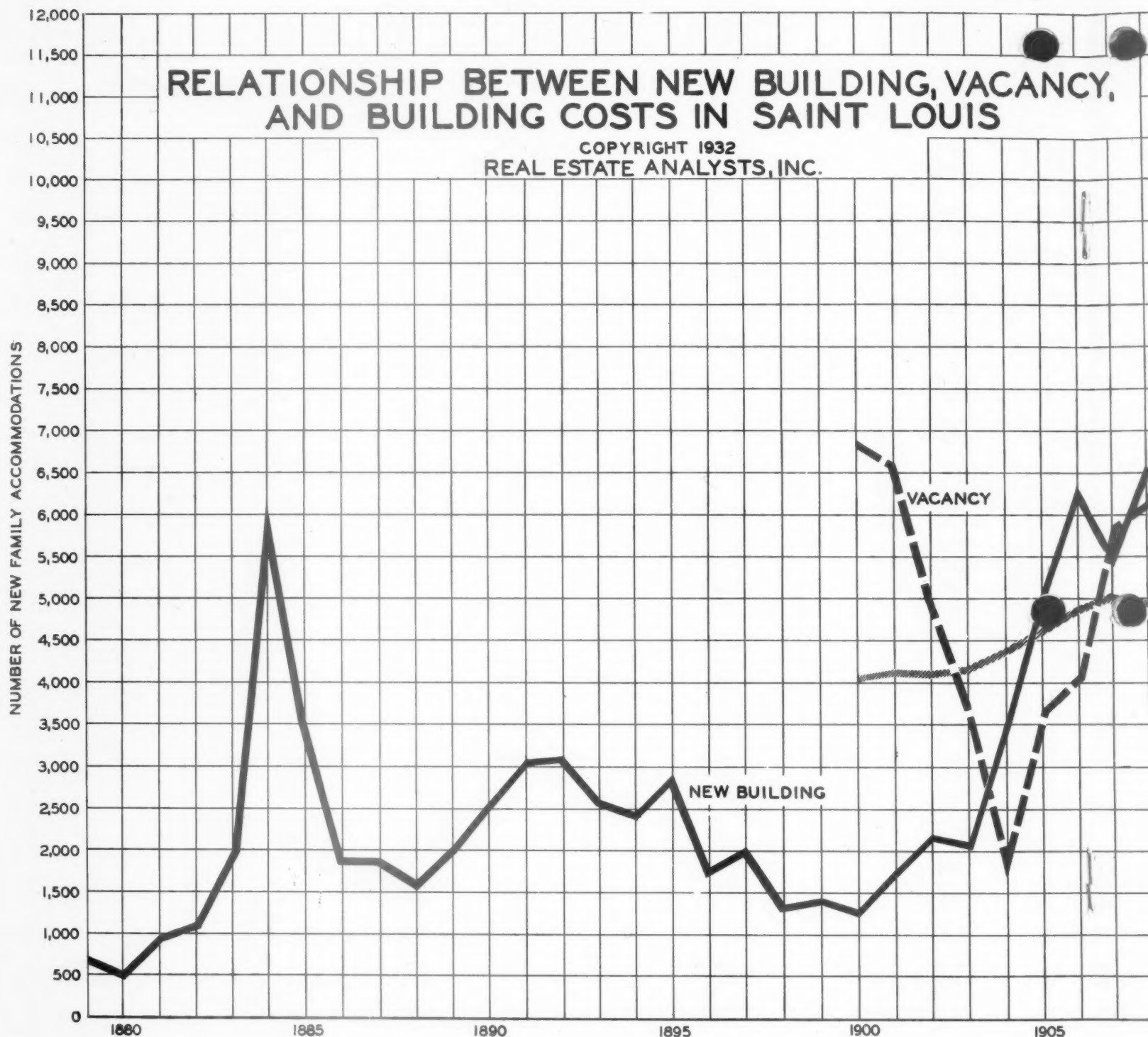
III. As most of the buildings of this type were built "open shop" it was felt that labor costs should be computed on what was actually paid rather than on some "scale" which, in periods of depression at least, has only a theoretical importance. Union scale on this building has only declined 4.6% since 1925 but the labor cost of building it non-union with skilled men has declined 41% since that time. Using non-union labor rates complicated the problem tremendously as the "scale" is a matter of record, while non-union rates are not. Tradesmen, contractors and labor agents were consulted in an effort to ascertain divergence from "scale wages" at different periods. The rates used for each year, we believe, come very close to those actually paid. Consideration was also given to the variation in efficiency of labor at different times. During the height of the boom efficiency per man decreased considerably.

IV. The amount of profit which was actually made on buildings of this type has varied greatly. Item 14 on page 78 shows the amount of profit which has been used in arriving at our cost. Undoubtedly many builders made more than this at times. The figures we have used represent our opinion of the average.

V. The figures shown on the table on page 78 and the chart on page 79 do not include the cost of the lot nor the sale commission on that part of the sale represented by the value of the lot. To find the total selling price of the building and lot, add 5 1/4% to the price of the lot and add the total to the building cost figure given on page 78. There has undoubtedly been a variation over this period in the price for which a desirable lot could be bought.

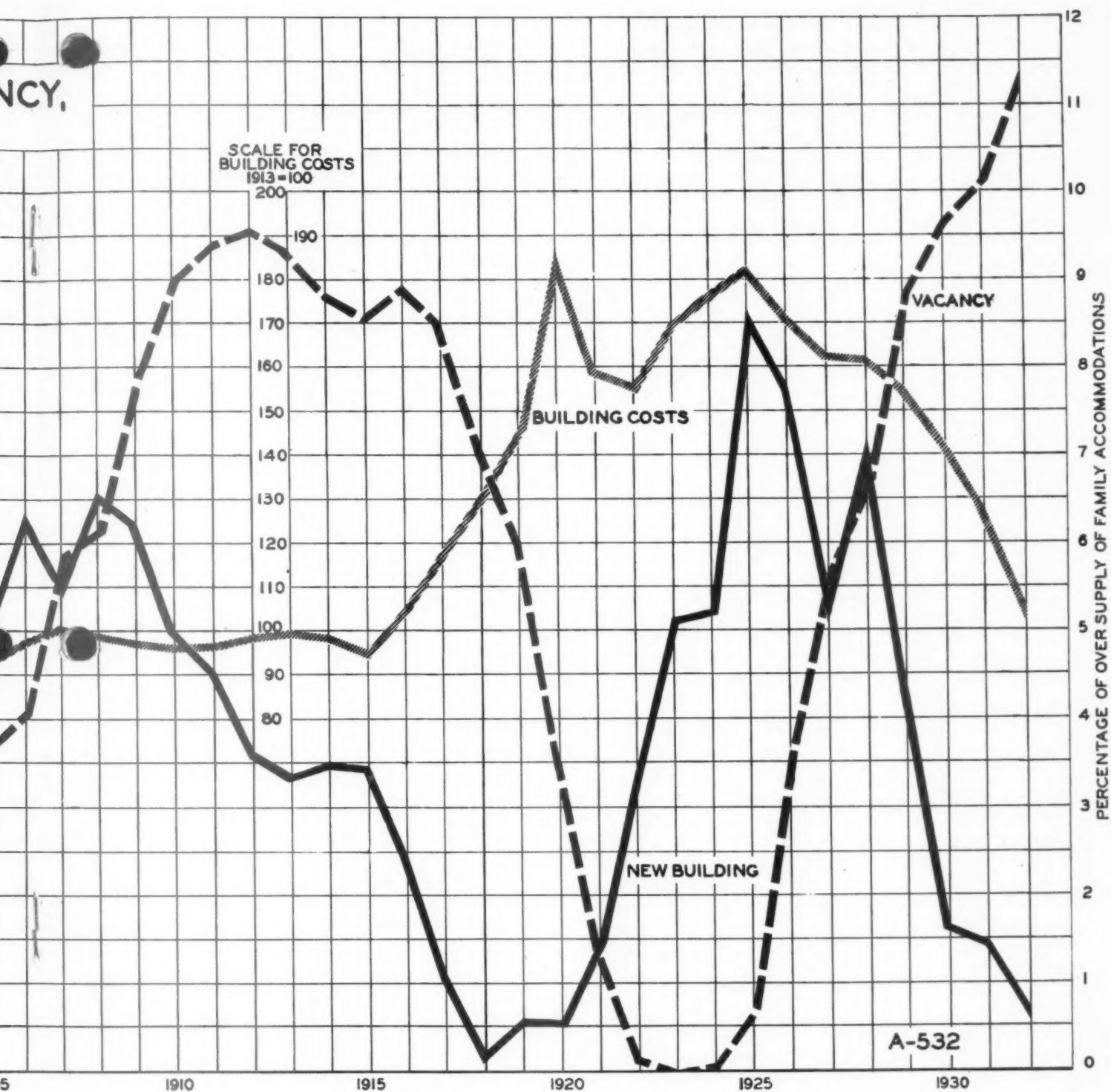






THE chart above shows why new residential building in Saint Louis stopped and why it is impossible to stimulate it at the present time. The solid black line read on the scale to the left, shows the number of new family accommodations built each year since 1879. The long dash line read on the scale to the right, shows the percentage of over supply or, in other words, the vacancy each year since 1900. The shaded line read on the center scale, shows the fluctuation in the cost of building in Saint Louis since 1900.

It will immediately be noticed that the building booms which started in 1903 and in 1921 started because the number of families in Saint Louis was fast catching up with the number of dwelling units as shown by the rapid decrease in vacancy (the dash line on the chart). This rapid absorption in both



periods was one of the causes of rapid rent increases (see chart, page 24, May issue) which made the ownership of real estate profitable. In 1904 there had been no great disturbance of construction costs, so as soon as a reasonable demand increased rentals and values, building started up. This was not true in the recent boom. Because construction costs had gone up tremendously, the demand had to increase to a point where rentals more than doubled over a fairly stable pre-war level before speculative building could be done with profit. The volume of building, therefore, dropped much lower before the last boom than it did before the 1904 boom. The great increase in marriages during the early part of the last boom increased the number of homes so rapidly that even after new quarters did start, it was four or five years until the construction of new quarters caught up and passed the demand.

By 1925 the shortage of houses had disappeared but new building continued at a high rate and an over supply of family accommodations started accumulating. As this over supply became larger and larger, competition for tenants caused a drop in rentals and lower returns caused a drop in values. By 1928, the percentage of over supply of living quarters had reached six and a half percent and rentals were no longer high enough to pay a return on the cost of a new building. Accordingly building dropped very rapidly but not rapidly enough to prevent the surplus from becoming still larger. At the present time, this surplus is larger than it has ever been before and is still increasing in spite of the almost complete cessation of building activity. The increase today is due almost entirely to the reduction in population due to the depression.

It is quite apparent on the chart that new building in Saint Louis has stopped because we have built more family accommodations than we have families. To stimulate building at the present time would merely aggravate the situation and increase the surplus, already far too large. From past experience, as shown on the chart, it appears that new building will not start in any volume until the demand for homes absorbs a large part of the over supply. In 1903, when vacancy went below four percent, building started a rapid rise. Again in 1920 building showed no activity at all until the vacancy had fallen below four percent. Even tho the absorption of vacancy is as rapid as it was after 1916, it will still take a number of years before vacancies can be reduced to less than four percent which, in the past, has seemed to be the signal for the revival of construction. This reduction in vacancies, which will make new building possible, will come about in the following ways:

I. Through the natural increase in the city's population.

II. Through a return to the city of many industrial workers who have been forced to go to rural communities by the depression.

III. By an "unscrambling" of "doubled-up" families as soon as business conditions improve to the point where many dependent families again become self supporting units with sufficient income to afford a separate establishment.

IV. By a rapid increase in marriages as soon as economic conditions make marriage possible for a portion of the sixteen or more thousand Saint Louis couples who have deferred marriage because of the depression.

V. By the demolition of buildings by fires, tornadoes, street widening, governmental improvement and such change of use necessitating demolition of dwellings.

VI. By a change from residential use in a building to commercial or industrial.

VII. By the passing of a dwelling from the competitive market because of total obsolescence or depreciation of the building itself or its neighborhood.

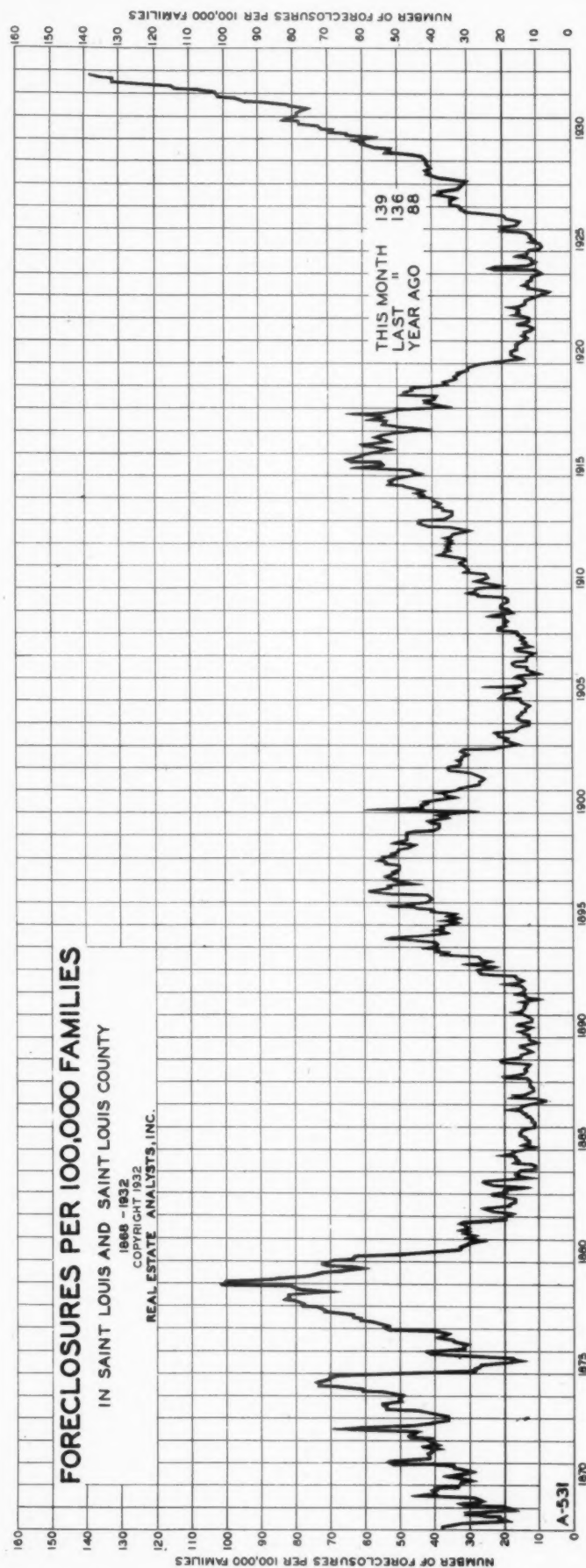
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THE chart above shows the number of foreclosures each month in Saint Louis and Saint Louis County for each 100,000 families. This chart shows more strikingly than any other the drastic liquidation taking place in real estate. In the great depression after the Civil War, foreclosures reached 101 per month for each 100,000 families. In the big depression in the nineties they reached 60. During the World War, they reached 65. At the present time they have reached 139 per month for each 100,000 families.

Due to the change in values of all things, shoes, clothes, wages and houses, loans which were safe in 1928 are unsafe today. Many of these came due last year and could not be renewed. Most of the foreclosures today are on loans made or renewed in 1929. The greater part of the drop in prices has come since that time with the most of it since 1930. The

mortgages made or renewed in 1930 will, to a great extent, come due next year. However, the panic psychology was on by 1930 and many of these mortgages were reduced or foreclosed then. While we expect foreclosures to remain high during 1933 we believe that there will be considerable relief from the distressing levels of the present.

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# VARIATION IN CONSTRUCTION COST OF A FOUR FAMILY FLAT

THE chart on the page opposite shows the variations since 1907 in the cost of construction in Saint Louis of the typical four-family flat described and pictured on pages 72 and 73. On the chart the cost is separated into material and labor. The table below itemizes

the material, labor and overhead costs in greater detail. Each column in the table is numbered and a brief description of the items included in each is given in the paragraphs below. Each paragraph is numbered to correspond with the column it describes.

## MATERIAL

1. Cost of face brick, salmon brick, backing tile, flue lining and building stone.
2. Cost of all materials going into mortar, concrete, cement and plaster.
3. Cost of all lumber, flooring, millwork, roofing and paint.
4. Cost of all materials for plumbing, heating, electrical work, sheet metal work, iron work, hardware, tiling and accessories.
5. TOTAL MATERIAL COST.

## LABOR

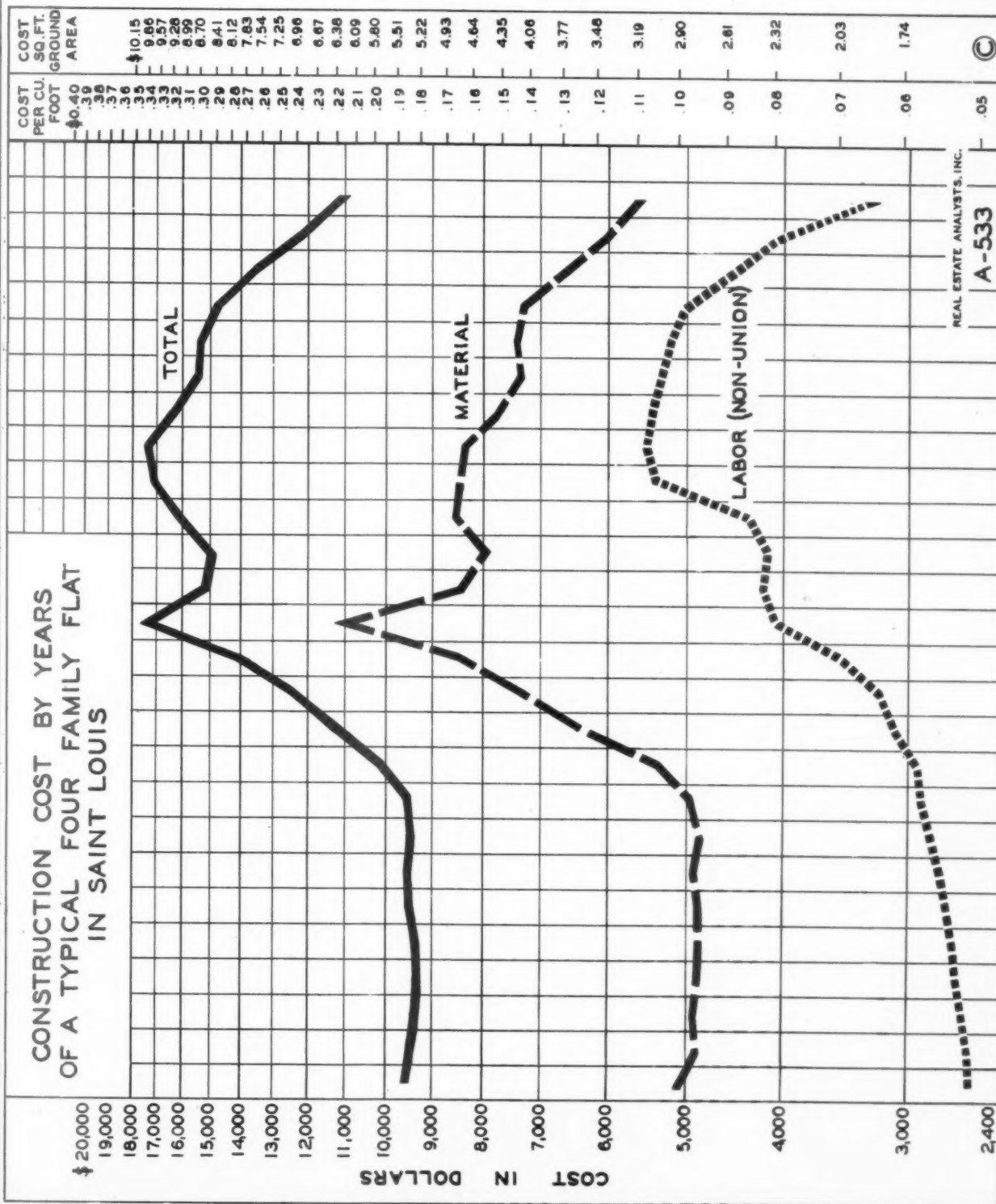
6. Cost of setting all stone, laying brick and pouring concrete.
7. Cost of labor on lathing and plastering.
8. Cost of carpentry, roofing, flooring, painting and builder's general supervision.
9. Cost of installing plumbing material and fixtures, wiring, heating plant and sheet metal work.
10. Cost of excavation, grading and landscaping.
11. TOTAL LABOR COST.

## OVERHEAD

12. Cost of all city permits, city inspections and utility connection costs.
13. Cost of financing, interest during construction, insurance and sales commission on the building only.
14. Estimated profit made by the builder.
15. TOTAL OVERHEAD COST.
16. TOTAL COST OF CONSTRUCTION.

YEAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTAL 16
1932	\$1553	\$756	\$2059	\$1379	\$5727	\$1099	\$273	\$1193	\$577	\$185	\$3327	\$144	\$1156	\$750	\$2050	\$11104
1931	1638	709	2180	1480	6067	1361	322	1411	725	211	4030	140	1257	750	2147	12244
1930	1791	777	2492	1637	6697	1590	383	1617	733	280	4603	140	1335	900	2375	13675
1929	1811	877	2860	1723	7271	1610	490	1949	731	308	5088	140	1474	1000	2614	14973
1928	1859	896	2767	1890	7412	1732	560	1948	738	298	5276	140	1470	1250	2860	15548
1927	1893	921	2683	1899	7396	1777	608	1936	760	298	5379	140	1449	1300	2889	15664
1926	1977	937	2998	1972	7884	1791	613	1936	780	298	5418	140	1500	1500	3140	16442
1925	2157	988	3244	2025	8414	1870	698	1924	836	298	5646	140	1573	1750	3463	17523
1924	2161	1071	3256	2079	8567	1742	698	1910	767	298	5415	140	1552	1500	3192	17173
1923	2046	1039	3494	2055	8634	1345	585	1643	698	271	4542	140	1487	1500	3127	16303
1922	1954	983	3298	1774	8009	1308	585	1508	607	242	4250	140	1370	1250	2760	15019
1921	1980	1143	3338	2028	8486	1265	570	1581	615	242	4273	140	1398	1000	2538	15297
1920	2488	1263	4983	2596	11230	1230	534	1556	577	242	4139	140	1585	750	2475	17844
1919	2099	1072	3411	1909	8491	1306	520	1094	533	185	3638	140	1320	500	1960	14089
1918	1667	898	2835	1900	7300	1164	492	1012	487	185	3340	140	1260	500	1900	12540
1917	1478	724	2381	1817	6400	1152	474	924	486	168	3204	140	1190	500	1830	11434
1916	1337	546	2104	1457	5444	1030	469	844	462	169	2974	140	1075	500	1715	10133
1915	1231	571	1997	1201	5000	980	469	844	448	169	2910	140	995	500	1635	9545
1914	1176	571	1990	1161	4898	994	469	838	422	169	2892	140	995	600	1735	9525
1913	1350	554	1996	1089	4989	980	468	831	422	169	2870	140	1000	600	1740	9599
1912	1340	540	1946	1102	4928	980	468	830	411	169	2858	140	995	600	1735	9521
1911	1340	540	1943	1090	4913	980	468	810	411	169	2838	140	995	500	1635	9386
1910	1317	520	1954	1136	4927	980	467	790	411	169	2817	140	995	500	1635	9379
1909	1297	529	2050	1113	4989	910	467	784	411	169	2741	140	995	600	1735	9465
1908	1297	524	2019	1127	4967	910	466	783	411	169	2739	140	995	700	1835	9541
1907	1316	559	2076	1166	5117	910	465	783	411	169	2738	140	995	700	1835	9690

# CONSTRUCTION COST BY YEARS OF A TYPICAL FOUR FAMILY FLAT IN SAINT LOUIS



The "total" line shows the total cost of construction by years, of building the four-family flat described and pictured on pages 72 and 73. This includes all labor and material and, in addition, financing costs, insurance and interest during construction and sales commission on the building. On the scale to the left of the chart is shown the total cost in dollars. The two scales on the right show the cost per cubic foot and the cost of construction per square foot of ground area.

The "material" line shows the total cost each year of all building materials used in the construction of this building.

The "labor" line shows the total labor cost (open shop) of building this flat each year from 1907 to the present.

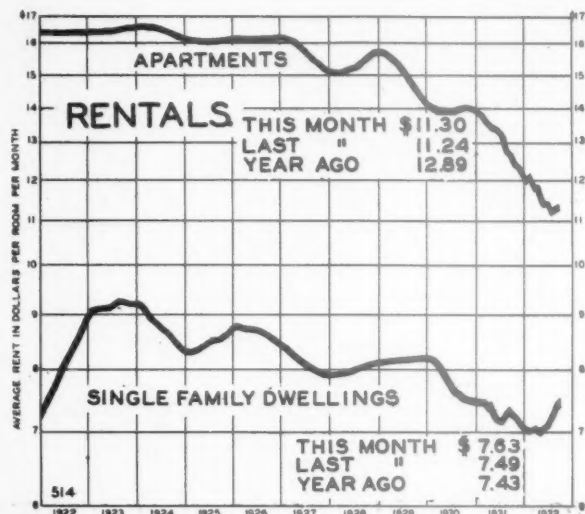
NOTE: These figures do not include the cost of the site but do include the cost of walks, sodding and landscaping - in other words, everything with the exception of the land itself.

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1907 '08 '09 '10 '11 '12 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 '25 '26 '27 '28 '29 '30 '31 '32 '33  
YEAR



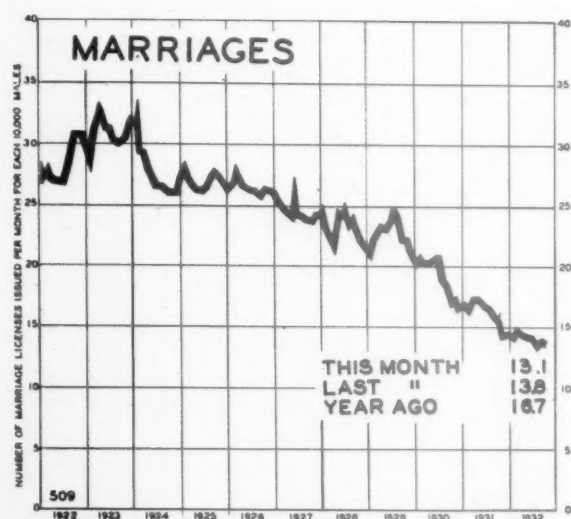


THE consistent increase in the average advertised rental of single family dwellings during the past four months, as shown on the lower line on the chart to the left, is undoubtedly due to the fact that during the depression, the cheaper vacancies have been absorbed to a larger extent than the more expensive ones, leaving a larger percentage of the vacancies in the higher rental group. Until the depression mitigates, low rent properties will have less difficulty in holding tenants than high rent properties.

The slight upward turn in the apartment line may be due to the same cause.



THERE was little change during the month in the general building situation, nor was any expected. New building in any quantity is still some time in the future. For a detailed explanation of the present situation and a forecast for the near future, see pages 74, 75 and 76 of this issue of the Real Estate Analyst.



DURING September, new marriages declined to an all-time low record, 54.7% below normal. Marriages dissolved during the month by death or divorce exceeded new marriages by 156. During the past three months, this figure has accumulated to 560.